AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of organ augmentation comprising the steps of:

transiently transfecting a first population of cells with a plasmid encoding the angiogenesis modulating agent VEGF, such that said first population of cells express VEGF for less than about 10 weeks;

encapsulating the transfected first population of cells;

selecting a second population of cells to be assimilated at a target tissue region upon implantation, wherein the second population of cells comprises myoblasts,

suspending the encapsulated first population of cells and the second population of cells in an injectable polymer matrix;

injecting the encapsulated first population of cells and the second ~~populations~~ population of cells and the polymer matrix into the target tissue region where the encapsulated first population of cells will express the VEGF angiogenesis modulating agent, thereby inducing assimilation and differentiation of the myoblasts in the target region and augmenting organ function.

2. (Previously Presented) The method of claim 1, wherein the step of transfecting the first population of cells comprises transiently transfecting the cells such that the angiogenesis modulating agent is produced for less than three weeks.

3. (Previously Presented) The method of claim 1, wherein the first population of cells comprises undifferentiated cells.

4. (Previously Presented) The method of claim 1, wherein the first population of cells comprises vascular endothelial cells (EC).

5. (Canceled)

6. (Previously Presented) The method of claim 1, wherein the second population of cells comprises undifferentiated cells.

7. (Previously Presented) The method of claim 1, wherein the second population of cells comprises vascular endothelial cells (EC).

8. (Previously Presented) The method of claim 1, wherein the polymer matrix comprises collagen.

9. (Previously Presented) The method of claim 8, wherein the polymer matrix comprises collagen type I.

10. (Currently Amended) The method of claim 1, wherein the encapsulated first population of cells express the VEGF angiogenesis modulating agent for less than about three weeks.

11. (Canceled)

12. (Previously Presented) The method of claim 1, wherein the first population of cells comprises myoblasts.

13. – 22. (Canceled)

23. (Currently Amended) A method for augmenting organ function comprising:

transiently transfecting ~~a second~~ first population of cells with a plasmid encoding an angiogenesis modulating agent, ~~wherein the second population of cells comprises cells of a different cell type than the first population, wherein either the first or second population of cells comprises myoblasts;~~

encapsulating the transfected first population of cells;

culturing at least a ~~first~~ second population of cells on a matrix material to produce an organ construct, wherein the first population of cells comprises cells of a different cell type than the second population, and either the first or second population of cells

comprises myoblasts; and

~~encapsulating the transfected first population of cells; and~~

implanting the organ construct and the ~~transfected~~ encapsulated first population of cells *in vivo* at one target site to replace or augment organ function, such that the ~~transfected~~ encapsulated first population of cells express the angiogenesis modulating agent for less than about 3 weeks and the ~~first~~ second population of cells assimilate and differentiate at the target site.

24. (Original) The method of claim 23, wherein the matrix is decellularized tissue.

25. (Original) The method of claim 23, wherein the matrix is a hydrogel.

26. (Original) The method of claim 23, wherein the matrix is a polymer.

27. (Canceled)

28. (Original) The method of claim 23, wherein the angiogenesis modulating agent is VEGF.

29. (Currently Amended) The method of claim 23, wherein the method further comprises assimilating the ~~transfected~~ encapsulated first population of cells into a tissue layer.

30.-32. (Canceled)

33. (Currently Amended) The method of claim 23, wherein the organ construct and the ~~transfected~~ encapsulated first population of cells are each implanted *in vivo* at a plurality of target sites.

34. (Currently Amended) The method of claim 1, wherein the step of encapsulating the transfected first population of cells further comprises using microspheres.

35. (Currently Amended) The method of claim 1, wherein the step of encapsulating the transfected first population of cells further comprises using alginate-PLL capsules.

36. (Currently Amended) The method of claim 23, wherein the step of encapsulating the transfected first population of cells further comprises using microspheres.

37. (Currently Amended) The method of claim 23, wherein the step of encapsulating the transfected first population of cells further comprises using alginate-PLL capsules.